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GREENWICH PIER.

A question [illegible] in the Court of Aldermen, [illegible] respecting the floating pier erected by the watermen at Greenwich. The Lord Mayor [illegible] that he had [illegible] the pier to be removed on the day, it having been declared a nuisance; he had received an intimation that if he did attempt its removal, bloodshed would be the consequence; on the previous night 1,500 of the watermen of Greenwich met, and he had a petition signed by 250 persons in favour of continuing the pier; under such circumstances he was anxious the Court should order him to proceed. Alderman Wilson, however, [illegible] in favour of the floating pier; the latter [illegible] a nuisance than that opposite the Archbishop of Canterbury's, at Lambeth, which had never been interfered with. The doctors, parsons, and coroner for Greenwich wanted every thing their own way. The City Solicitor said there was no doubt of the power of the Lord Mayor to remove the pier, and to call in the aid of the sheriff to do so; but perhaps the best course would be to leave the matter until the next Court of Conservancy, and eventually to settle it by reference to a jury. This mode was at length agreed to. —*Era, Sunday, June 18th.*

Our attention had been attracted towards the *permanent* pier at Greenwich, so called, we presume, in contradistinction to the floating-pier, or rather pontoon bridge, of the watermen. Without any special or exclusive information upon the subject, we looked over the ruin, and from our knowledge of the professional reputation of the contractors, and the working power of their establishment, we at once, in our own minds, set down the failure as resulting from a question of cost between what the thing is and what it ought to have been; or, in other words, that the parsimony of the proprietors, whatever there may be, had overruled the better judgment of the builders, in bargaining for cheap execution of a most difficult and expensive work. [illegible] of the foundation, an abrupt [illegible] of the shore, the instability of a shifting foundation, the [illegible] of the tide upon the [illegible] of the structure, and the constant [illegible] kept up by steam vessels, required not only talent [illegible] but, [illegible], the sinking of a thousand or thousands that had not been calculated upon. The "to be" and "not to be" of the so-called permanent pier is one question; the question of erecting a really permanent pier is another, and requires another place than its [illegible].

The extract we insert from a popular Sunday journal, shows that much difference of opinion as well as sentiment prevails as to the policy or prudence of doing away with the Watermen's Pier; a difference sufficiently weighty [illegible] the suspension of an act [illegible] magistrate of London ready [illegible] by the [illegible] river, and in his quality of conservator [illegible] evinced in loud and deep threatenings. Our business is less with the boats than with the building; but we are advocates of the industrious classes, whatever may be their occupation. If oppression by [illegible] —if severely exacted claims to their country in past times of peril—if to have been among the greatest sufferers in the contest between hand-labour and mechanic power, by the application of steam to navigation on the river Thames, constitute grounds for sympathy in their cause, then are the watermen before the public with strong claims [illegible] support.

The permanent pier, as we understand the matter, is a speculation, a [illegible] of money for a purpose which may or may not answer; and such [illegible] of [illegible] capital have frequently been productive of advantage to the public, and profitable to the parties engaged in them; in this instance we must leave to [illegible] the fulfilment of either proposition. The case of the watermen exhibits this, that their floating pier, though humble, possesses all the [illegible] and convenience required by the public, with these interests as speculators, [illegible] by means of this species of accommodation to visitors by the steam-boats, a portion of the income they daily [illegible] deprivation (without other remedy) of their accustomed and legitimate employment.

IMPROVED DRAWING SCALES.

During the past month we have had our attention directed to a series of improved drawing scales, arranged expressly for all classes of professional men who have to calculate real or proportional plans and elevations, or isometric, military, or perspective representations of objects. Before, however, we proceed to explain their construction and utility, we will say a few words on the manner of draughtsmanship by way of information to the learner.

It will be well known to the greater number of our readers, that the usual tools and materials required by draughtsmen, consist of a case of mathematical instruments, an oblong drawing board, a T square, a set of triangular instruments, a box of colours, and hair pencils, pallet, sponge, penknife, black-lead pencils, Indian-rubber, [illegible], a few pins and needles, with a suitable supply of drawing-paper.

The common case of mathematical instruments contains a pair of compasses with one leg prepared to act as a spring, so that when it is required to set them to any particular expansion, [illegible] by placing the fixed leg [illegible] and [illegible] the second leg nearly to the required distance, then by turning a small [illegible] the [illegible] can determine; on this account they are usually termed hair-spring compasses. In addition to these, there is a second pair of compasses, [illegible] can be removed at pleasure, and in the place thereof may be inserted the pencil or pen point; on some [illegible] a lengthening bar is provided which is prepared to attach to the [illegible] compass at one end, while the opposite end is arranged to receive the pencil or pen point. There is also a small bow pencil and bow pen, with one or two drawing pens; in addition to these there is usually a parallel ruler, a protractor, and a plane scale, which is mostly prepared to act as a protractor.

We now proceed to describe the manner in which the common case of instruments [illegible] of those who have occasion to employ them. The [illegible] compasses are used for several purposes, such as transferring any given length from one of the scales of equal parts to a certain part or parts of the drawing in progress, in [illegible] straight lines and circles [illegible] any number of equal parts, in determining the length of any given line by a scale of equal parts, and the inclination of [illegible] lines to each other from a scale of chords. The bow pencil is used in describing circles and [illegible] with [illegible] of an inch or 2 [illegible] larger circles and circular [illegible] the second pair of compasses [illegible] the pencil point or [illegible] pen point. The scale [illegible] or set off from a [illegible] is required to [illegible] scale of equal parts [illegible] a given degree [illegible] a line, [illegible] of the arc to a curved line [illegible] and length of the chord of [illegible]. The [illegible] must be taken from a scale of chords. The parallel rule is employed as a guide in drawing straight lines by means of a pencil or drawing pen, parallel to any given or required position; although in the [illegible] of this valuable instrument is seldom required by mechanical, engineering, or architectural draughtsmen, owing to the [illegible] which they enjoy by using the T square, arranged with a moveable stock, and the simple and effective triangular instruments, the utility of which we shall take some other opportunity of explaining.

The sector is a very useful yet complicated instrument, but as it is seldom used by ordinary draughtsmen, and as it is [illegible] to be constructed as it ought [illegible] before [illegible] drawing is [illegible], we forbear to describe the utility of the several scales [illegible] usually [illegible] upon it.

The plane scale is arranged in a variety of different modes, although it is usually made 6 inches long, and having [illegible] scales of equal parts [illegible], and [illegible] the first part of each of these is subdivided into [illegible] equal parts; these scales are used in plotting off or determining the proportional length of any straight line, or the distance between two points in [illegible] feet and inches; the edges of the [illegible] are arranged as a protractor, for regulating or determining the inclination of two lines to each other. On the second side there is a scale of chords, arranged for a 2-inch radius, and six scales of equal parts so divided that 60, 50, 45, 40, 35, and 30 of each of them are equal in length to 10 inches; the first part in each of these scales are subdivided into tenths and twelfths. Below these are placed two diagonal scales of equal parts of ½ and ¼ of an inch each, having these fixed parts subdivided by parallel lines, so that any dimension to the [illegible] part of one of the equal parts may be correctly determined, or transferred from them to the drawings in progress.

As this scale is too short for general use in the offices of our builders, surveyors, architects, and engineers, there has been a variety of other plane scales devised by several persons, from 8 to 12 inches long; these in general are so arranged that the draughtsman is compelled to transfer all required proportional dimensions from them to the paper by means of a pair of compasses; further, there is great difficulty experienced in marking off any particular length, [illegible] complication, [illegible] in the advertisement before [illegible] designs [illegible] a new mode of arranging the scales of equal and of [illegible] in London, as a lecturer and teacher of plan drawing, perspective, and isometric drawing, he has taken an opportunity of introducing the improved scales to the notice of the numerous individuals in London who use and ought to profit by employing them in preference to all others which have ever been brought to the notice of the practical draughtsmen, builders, surveyors, architects, and engineers of Great Britain and Ireland.

We shall now describe the method of using one of the common plane scales of equal parts, by which some of the disadvantages will be [illegible]. As all the scales are generally arranged between parallel lines, [illegible] from the edge [illegible] to use a pair of compasses [illegible] any length to the scale, or any proportional length from the scale to the paper; [illegible] these circumstances, let it be required to transfer a length from the scale to the drawing in progress, then the eye must be used while placing the compasses [illegible] correspond with the proposed length. Again, we must place the compasses [illegible] with a [illegible] ruler, and then [illegible] the paper, [illegible] by means of a sharp-pointed black-lead pencil.

When this method is adopted, [illegible] paper is in many instances [illegible] by the point [illegible] with [illegible] of these valuable and delicate [illegible] occurs in every [illegible] place the compasses [illegible] and then to transfer it to the paper [illegible] the paper.

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